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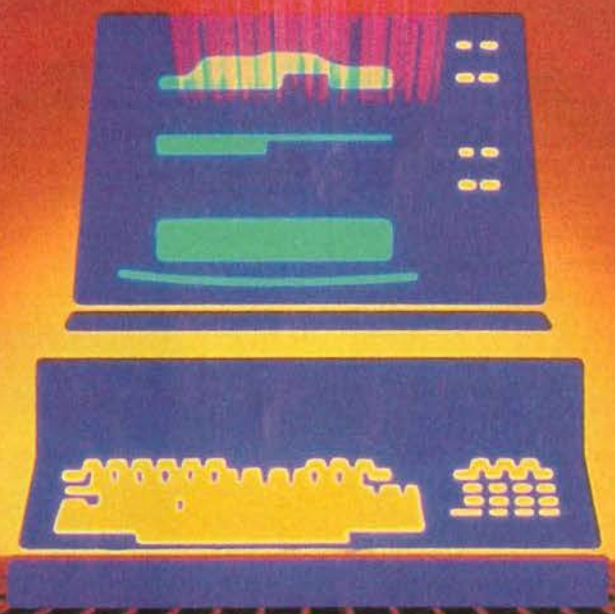
Cedarville College

TORCH

A Magazine Ministry of Cedarville College

CHRISTIANS and COMPUTERS



1984 ITINERARIES

Dr. Paul Dixon, President

July 8 Norwood Baptist Church, **Cincinnati, OH** • *July 12* Good News Baptist Church, **Churubusco, IN** • *August 31-September 3,* Highland Park Baptist Church Couple's Retreat, **Flint, MI** • *September 7-8* Illinois-Missouri Fellowship Men's Retreat, **Camp Manitoumi, IL** • *September 8* Area Youth Rally, **East Moline, IL** • *September 9* First Baptist Church, **Silvis, IL** • *September 30* Church of the Open Door, **Elyria, OH** • *October 7-10* Cedar Hill Baptist Church, **Cleveland, OH** • *October 13* Indiana State Youth Rally, **Beechgrove, IN** • *October 24* First Baptist Church, **Gallipolis, OH** • *October 28* Northland Baptist Church, **Grand Rapids, MI** • *October 29-30* Michigan Association of Regular Baptist Churches, **Grand Rapids, MI**

Dr. James T. Jeremiah, Chancellor

July 7-11 Baptist Mid-Missions, Bible Baptist Church, **Kokomo, IN** • *July 12* Moraine Heights Baptist Church, **Dayton, OH** • *July 15* Pleasant Hill Church, **Union City, IN** • *August 5-9* Bethany Baptist Church,**Madison, GA** • *August 26 Mosherville Bible Church,* **Gillett, PA** • *September 10-13* Pastors' Conference, Cedarville College, **Cedarville, OH** • *September 16-19* Bible Fellowship Church Bible Conference, **Arlington, OH**

Dr. Hugh Hall, Director of Church Relations

August 20-24 Tri-Lakes Baptist Church, **Columbia City, IN** • *September 10-13* 17th Annual Pastors' Conference, Cedarville College, **Cedarville, OH** • *September 17-18* Indiana State G.A.R.B.C. Meeting, University Heights Baptist Church, **Indianapolis, IN** • *September 23-26* First Church of Wellston, **Wellston, MI** • *October 1-2* ILL-MO. State G.A.R.B.C. Meeting, First Baptist Church, **Silvis, IL** • *October 7* 125th Anniversary of First Baptist Church, **Elkhart, IN** • *October 9* Church-Pastor Finance Seminar, Cedarville College, **Cedarville, OH** • *October 15-17* Ohio State G.A.R.B.C. Meeting, First Baptist Church, **Niles, Ohio** • *October 28-31* First Baptist Church, **Middleville, MI** • *October 29,30* Michigan State G.A.R.B.C. Meeting, Northland Baptist Church, **Grand Rapids, MI**

Dr. Donald Moffat, Special Representative

September 9-14 Calvary Baptist Church, **Mt. Pleasant, IA** • *September 16-21* First Baptist Church, **Perry, IA** • *September 23-28* Cedar Street Baptist Church, **Tipton, IA** • *September 30-October 4* Grace Baptist Church, **Harlan, IA** • *October 7-10* Eastbrook Baptist Church, **Reynoldsburg, OH** • *October 14* Highview Avenue Baptist Church, **Akron, OH** • *October 15-17* O.A.R.B.C. Conference, First Baptist Church, **Niles, OH** • *October 21-24* Memorial Baptist Church, **Verona, WI**

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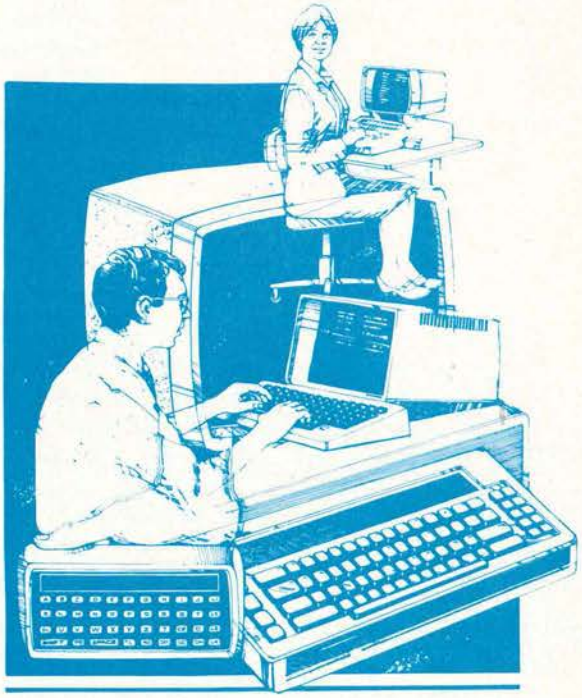

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Ron Coriell
TORCH Managing Editor
Cedarville College
Box 601
Cedarville, Ohio 45314

Editor
Martin E. Clark

Managing Editor
Ron Coriell

Associate Editors
Harmon Bergen
Virginia Taylor

Graphics and Photography
Martha Baldwin
Sue Larson
Sheryl Liddle

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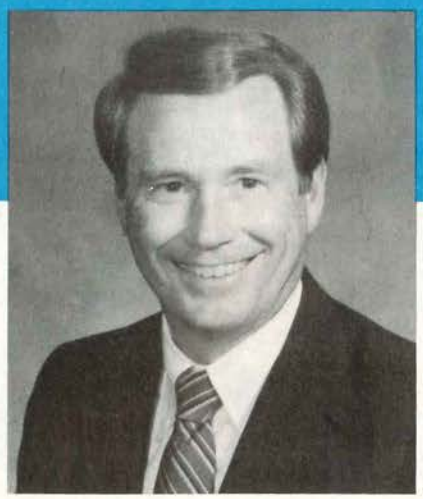


President's Perspective

by Dr. Paul Dixon

John Naisbitt, author of the bestselling *Megatrends*, said in his chapter "High Tech/High Touch": "We must learn to balance the material wonders of technology with the spiritual demands of our human nature." That spells opportunity for Christians – an opportunity to "reach out and touch" this rapidly changing society of ours. Our "touch" is truly the "highest touch" in this day of high technology. Lonely, bewildered, and fearful people must be told of a meaningful, eternal value system built upon the Word of God. There is more to life than obtaining temporal things such as the computer, television, or the VCR. Jesus Christ is the answer to all the emptiness and searching.

Many opportunities exist in this day of exploding, new technology. Pastors can be better administrators with the new, improved means of record keeping at their disposal. Pastors can also be better shepherds as they make strategic plans to reach a community for Christ. These can be developed and regularly evaluated on the computer.

The Christian family has an opportunity to grow via home computers. Software is available to assist in everything from education to finances to recipes. Learning for children of all ages can take on more of a challenge and be an enjoyable, enriching experience. Scripture verses that are memorized during family devotions can be stored topically for a systematic review. Lifetime prayer lists with dates of requests and answers may be included.

Today, Christian colleges and universities have a vital role in computer training and assistance of college students, pastors, missionaries, and Christian educators and businessmen.

At Cedarville we are providing the latest technology for the young people coming to us for an education. The Digital VAX system was added in the summer of 1983 solely for academic purposes. Now several other micro systems are available on campus. Additional hardware and software are being added each academic year.

Our academic departments are developing methods for the implementation of the computer in their various disciplines. Training is being provided for faculty development in high technology.

Our newest dormitory is wired for individual computers in each room. A learning center will be available in individual dorms for a bank of computers. Future dorms will be constructed with these same provisions and older dorms will be refitted to meet these objectives.

Our next major construction project is a modern library of approximately 60,000 square feet. On the drawing board are provisions for the latest high tech equipment: a computer cataloguing system, a learning center, and faculty and student access from distant offices and dorm rooms.

This is truly an exciting era. Never has society been confronted with such rapid change on all fronts. For the Christian, "high tech/high touch" means taking advantage of the latest technologies in order to touch the hearts of people with the everlasting gospel of our Lord Jesus Christ.

Computers: New Tools for Christian Ministries

by Dr. Rex M. Rogers

Exciting new inventions always create new opportunities for Christian ministries.

Today's thriving bus ministries, for example, are linked directly to yesterday's horseless carriages. Internationally effective radio ministries use the wireless to preach the gospel to every creature in a manner unknown to Christians of an earlier time. Even travel to the uttermost part of the earth is now possible in total comfort through the power of flight. Whatever the example, technological inventions bring swift change and very often new means of witness for Christian agencies.

The latest ministerial tool may be the microcomputer. Since 1975, the desktop machine has moved from corporate necessity to household word, to practical church office aid. More churches, mission boards, Christian colleges, and parachurch organizations are computerizing with each passing month. And now, well over 100 vendors market software specifically designed for church-related use. Some experts have even predicted that every church, regardless of size, will acquire at least one computer in the next five years.

This article identifies several major issues facing these organizations and provides an overview of computerization trends in Christian ministries. The efforts of numerous Christian-based organizations are highlighted in order to develop a panoramic view of computers in Christendom.

FIVE PATTERNS

Computer adoption and adaptation in Christian ministries is already following patterns similar to those found in secular organizations.

First, top management personnel in Christian ministries have greeted computers with a cautious attitude very similar to their secular counterparts. Resistance is probably the first reaction of many and remains the outlook of some. High costs, loss of management control, and lack of some computer understanding all combine to foster this cautious response. The orientation of top managers is also described as permissive (a kind of passive acceptance of the inevitable), supportive (a more actively involved stance), or progressive. Those in the last category do not wait for their staff to suggest computer services but attempt to generate new ideas and applications of their own. As yet, this posture is rare. Most administrators in Christian ministries are characterized as permissive to supportive with several moving step-like from one to the next as they learn the advantages of computers.

A second pattern indicates that a majority of those responsible for computer-related tasks in Christian organizations have evolved into these roles from a wide variety of educational backgrounds. Very few are specifically-trained computer professionals. Learning on the job is a common practice and many have inherited their task because they happen to know a little more than others in the office.

High personnel turnover is a third pattern. As computer employees gain experience and realize that considerably greater salaries may be found elsewhere, the temptation to leave becomes too much to resist. This is probably unavoidable in the present market. But some Christian organizations have kept their people by providing them with new equipment and thus creating a challenge and some excitement.

A fourth observable pattern may be stated as a maxim. Once installed, computer facilities grow.

"Upgrading," or adding more power and capacity to one's machine, is a frequent practice and is invariably required sooner than expected. Managers are usually surprised at how quickly more resources are needed. The danger here is to be "penny wise and pound foolish." Buying the least expensive computer option may commit the ministry to an inadequate system. Expandability is a crucial purchasing consideration.

Finally, in almost every case, the initial use of a computer in a Christian ministry is in accounting or some other administrative application. Word processing follows as a close second. As in business, the cost advantages of computers are most readily apparent in general ledger administrative work. What once required hours of drudgery is now completed in minutes. More creative applications typically come with experience.

CHURCHES

Churches are discovering that computers enable them to accomplish tasks that they are already doing, but at a much faster pace. Virtually any record-keeping application is possible on computers: visitation programs, Sunday school statistics, bus routes and scheduling, correspondence, bulletins, data bases, calendars, planning, mailing lists, treasury reports, or even the monitoring of energy use.

Several vendors are developing computerized concordances and theological dictionaries so that "on-line" access to seminary libraries through a phone modem is an imminent possibility. The number of pastors with computers and phone modems is increasing. Networked (linked) computers are also operating, providing direct communication from pastor to pastor. The potential for information exchange is limitless.

CHURCH AFFILIATIONS

It would be impossible to say how many of the nation's 250,000 churches have computers. But several denominations or associations are already computerizing.

The Church of God headquarters in Anderson, Indiana, uses computers for administrative applications and donor-related needs. The Presbyterian Church USA has a church-wide data processing coordinator and the Lutheran Church In America is developing a local church information system. The Southern Baptist Convention is more committed to television and video at this juncture, but is also experimenting with a church information system.

Certainly among the leaders are the Conservative Baptist and the United Methodist denominations. Conservative Baptists have implemented a very large IBM system to support their roughly 2000 programs, 1000 missionaries, and four related agencies. The United Methodist Church employs a full-time computer consultant who studies an individual church's information needs and recommends a system. Of 38,000 United Methodist churches, some 2500 have a computer now, with an expected 20,000 to follow in the next five years. They control 15 major computer installations and are presently developing church software for marketing in the fall of 1984.

The General Association of Regular Baptist Churches began using computers at association headquarters in 1979 for administrative tasks, mailing lists for the *Baptist Bulletin*, and some word processing. One of the more prominent churches within the association that is using a computer is Emmanuel Baptist in Toledo, Ohio, pastored by Dr. Ernest Pickering. Their IBM XT is being used for general ledger tasks for both the church and the Christian school with further applications planned for the summer.

Nearly all of the applications mentioned are administrative in nature. Very rare indeed is the church that uses computers for instruction in Sunday school. Children's materials are now being converted (pun intended) to software packages as are a number of Bible games. Using computers in Sunday school will require a longer period for acceptance. But, like the introduction of the overhead projector, its acceptance

will eventually occur. For the moment, however, software firms find church administration a more lucrative field.

MISSION AGENCIES

Mission agencies have employed computers very much like churches and affiliations. Administrative tasks are typically computerized first, followed by some use of the system for cummunication. Four GARBC-related mission boards, Association of Baptists for World Evangelism, Evangelical Baptist Missions, Baptist Mid-Missions, and Fellowship of Baptists for Home Missions, have all computerized to some degree and are using their systems for administrative tasks and word processing. None have sponsored micros for missionaries overseas but some missionaries associated with EBM are using micros for language translation.

Clearly two of the leading computer users in missions are Wycliffe Bible Translators and The Evangelical Alliance Mission. Wycliffe began using computers more than 20 years ago in Mexico for language translation work. Pioneers by the very nature of their work, Wycliffe translators develop all of their own software and then provide their expertise to others. They currently have more than 350 micros on the field, most of which are used for finance and translation tasks. Lately, they have placed 63 Sharps battery operated micros, giving the missionaries even greater flexibility. Wycliffe maintains a relationship with Taylor University in Upland, Indiana, where it regularly conducts missionary training courses in computer and language translation.

TEAM 's use of computers is equally impressive. It is a nondenominational agency focusing on church planting and literature, as well as hospital and radio ministries. To support its 1200 missionaries, the mission maintains a large IBM system at its headquarters in Wheaton, Illinois, as well as more than 40 micros on the field.

CHRISTIAN COLLEGES

Colleges must progress in all fields of learning in order to maintain a competitive edge. In the last five years, this has meant a concern for computers on campus and has generated hours of discussion pinpointing what a student needs in order to be considered "computer literate." Christian colleges have been pressured to find funds for computers and then integrate their usage into the curriculum.

Several Christian colleges have made remarkable progress and now display very fine computer facilities.

Taylor University is among the top five. It has a large Digital VAX system and micro labs. Their Computer Assistance Program (CAP) is especially noteworthy. CAP recruits upper division computer science students to assist mission agencies or visit the foreign field in internship experiences that allow them to use their computer skills. This program has been very successful and is now becoming a model for others.

Cedarville College has an academic computer center housing a large Digital VAX system and is gradually expanding this resource and acquiring micros. A unique, three-day chapel in-forum focused upon "The Christian and the Computer Culture." Speakers assessed the social and cultural implications of a computer culture from a biblical perspective. This summer, Cedarville student Rodney Smith is in Portugal helping missionaries to set up a computer system.

Calvin, Hope, David Lipscomb, and Anderson Colleges, along with Biola University, also have advanced computer facilities. Wheaton and Messiah Colleges have Digital VAX systems in place while Liberty Baptist College, Tennessee Temple University, Pensacola, and Grand Rapids Baptist College each have other systems that they are developing.

Funding is the key to the "computer goes to college" trend. In most instances, such capital expansion cannot be accomplished without significant donor support.

PARACHURCH ORGANIZATIONS

The computerization experience of parachurch organizations reflects many of the same challenges faced by other Christian ministries. Cost is a major factor. But, it may be deferred through creative business arrangements.

Campus Crusade for Christ International, for example, leases its IBM system, thus avoiding a long term commitment to a machine with limited size. Upgrading may be accomplished when and as needed. Another cost savings approach is used by the Navigators. Data processing personnel note that maintenance charges are often as expensive for smaller systems as with their larger counterparts. In such cases, the larger system that meets the agency's needs more effectively may cost more up front but return a savings over time.

Invariably, parachurch organizations are seeking ways to upgrade their equipment. Both Child Evangelism Fellowship and the Christian Schools International are planning for larger systems that will allow database and other new applications.

In summary, Christian organizations are computerizing at a faster pace than anyone imagined just five years ago. For now, Christian ministries are increasingly using computers to accomplish age-old tasks. Tomorrow, computers will yield their own new opportunities, changing the face of Christian witness in ways no one can predict. The current challenge is to find the necessary funds to pay for this progress.

Dr. Rex M. Rogers is Assistant Professor of Political Science at Cedarville College. An alumus of Cedarville in 1974, Dr. Rogers continued his education at the University of Akron, receiving his M.A. degree in 1978 and the Ph.D. degree from the University of Cincinnati in 1982. Dr. Rogers is also director of academic computer services at Cedarville.

In Need of Computer Assistance?

by Dr. Rex M. Rogers

Probably the most interesting and well-developed group providing computer-related help is the **Christian Computer Users Association**. Its president, Mr. Doug Voss, describes the association's function as "an information conduit for anybody that's a Christian." Founded in 1980 as a nonprofit corporation, its primary purpose is "to proclaim the gospel of Jesus Christ through the use of computers and computer science and technology." The association actively helps churches to identify their information processing needs and to acquire appropriate computer systems and software. Nominal service fees and membership dues provide the support for their activities. An individual membership is $15 and entitles the subscriber to the CCUA *News* and other services. The *News* lists dates and locations of regular CCUA-sponsored seminars on computers in the local church.

Christian Computing released its first issue in May-June 1984. The magazine's editor, Dr. Nancy White Kelly, desires to "inform any and all Christians who have an interest in computing." As a bimonthly publication, it seeks to become a "consistent source of 'Christian -oriented' computer information" providing reviews of church-management software, feature stories on the unique application of computers in Christian ministries, and columns like "Missionary Bits and Bytes." The subscription price is $12 annually.

The Church Computer Users Network was organized two years ago as a "database for information of interest to church people." Rev. Kenneth Bedell who is the primary force in this effort publishes a quarterly newsletter updating computer developments and the network's activities.

Church Growth Data Services is a business whose function is to bring computer technology to the ministry of the church. It regularly conducts seminars on "How to Effectively Use Computers in Your Church" and is active in developing new church applications for computer technology. A perspective of its services is available in a helpful pamphlet entitled *Church Computer Report*.

For further information, readers may wish to consult the following sources:

Bedell, Kenneth. ***Using Personal Computers in the Church***. Valley Forge, PA: Judson Press, 1982.

Bedell, Kenneth and Parker Rossman. ***Computers: New Opportunities for Personalized Ministries***. Valley Forge, PA: Judson Press, 1984.

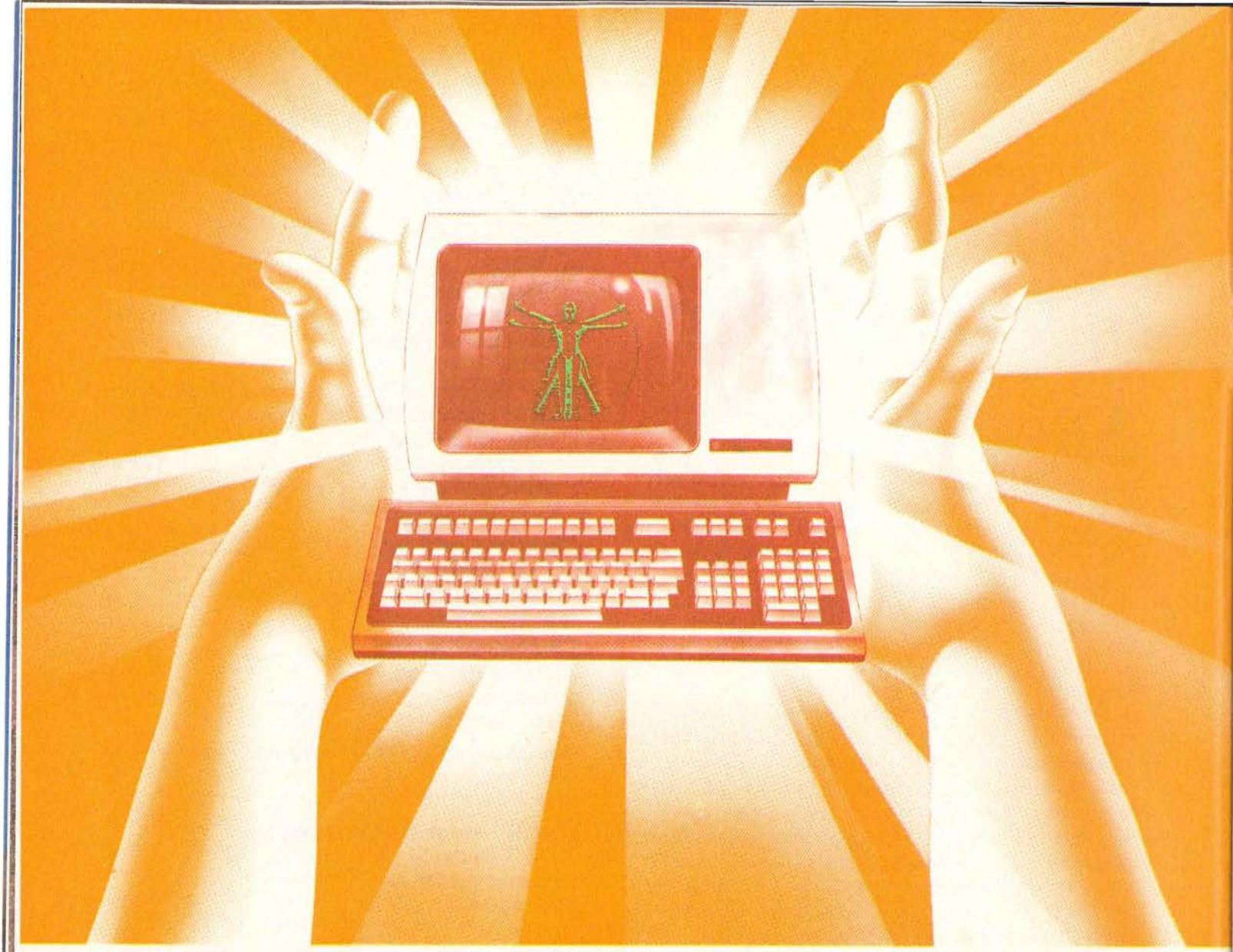
Clapp, Steve and Dennis M. Davis. ***The Third Wave and the Local Church***. Champaign, IL: C-4 Computer Co., 1983.

Christian Computer Users Association
1145 Alexander, S.E.
Grand Rapids, MI 49507
(616) 241-0368

Christian Computing
72 Valley Hill Road
Stockbridge, GA 30281
(404) 474-0007

Church Computer Users Network
P.O. 1392
Dallas, TX 75221

Church Growth Data Services, Inc.
709 E. Colorado Blvd., Suite 150
Pasadena, CA 91101
(818) 449-4400



The Battle for the Computer

by Gary Percesepe

There is a subtle war being waged as to the meaning and significance of the computer. The outcomes of this conflict will largely influence the ways computers will be used in our world. Unfortunately, few Christians recognize the existence of any war. This conflict focuses on the status of human values in a technological era.

Many, including large computer corporations, would have us believe that there is nothing to fear – computers are mere tools, value-neutral machines that function in accordance with the way in which they are programmed.

The time has come when I find myself compelled to speak to this issue. I am convinced that computers are indeed (1) a value-expressive technology and (2) an intelligence form. There is no such thing as a "moral vacuum." If Christian values do not determine the meaning and usage of the computer and related forms of technology, other values will.

Most of us are quite mystified by computers and by the language in which programs are written. It is precisely this "mystical" atmosphere which I believe needs to be "demystified."

So let us reflect first of all on the essence of technology. If we do this in a careful way, we will soon discover that the origins of technology are very close to us indeed, and need not be perceived as a threat to our Christian values, but rather a substantiation of those values.

Technology is not new and it has not suddenly appeared with the advent of computers. Rather, technology is prior to computers in the same way that writing predates the science of reading.

Many fail to realize that writing is a technology involving the mechanical manipulation of signs. The

anxiety and fear which people harbor towards today's computers is not unlike the suspicion and mistrust that attended the advent of writing in a logo-centric tradition thousands of years ago. Even Plato had misgivings about writing, regarding it ambiguously as both remedy and poison.

Writing introduced *absence* as a major theme, signifying the demise of the speaker's presence in the act of communication. Written text took on a life of its own and this then gave rise to the birth of reading.

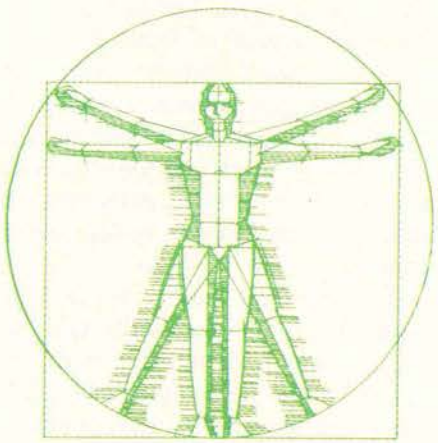
There is a real sense in which reading itself is a technology. It is a technical operation performed upon the text. My seven year old daughter recently took a pencil and began to underline particularly meaningful portions of the text in her Sunday school paper. Whether she knew it or not she was taking her first steps in the direction of a reading technology – hermeneutics, the science of the text.

The "cash value" of what I am saying is that technology is nothing new. Christians write and read and have ascribed meaning and direction to these century-old technologies; this is precisely what we must do with computer technologies. One thing is certain, among those who understand computer languages, there are some who in effect are writing a new dictionary. The question I raise is whose values will affect how this dictionary is written?

This brings me back to an earlier statement in which I said that computers are value-expressive. Most would contend that the computer is just a machine, a fact void of values. Let us reflect on the theoretical and epistemological (Epistemology = science of knowledge) significance of facts.

In and of themselves, facts are quite meaningless. They exhibit no pattern and proclaim no relationships. In this sense, referring to the present era as the "Information Age" is somewhat misleading for it might lead us to suppose that the collection of information, or facts, is equivalent in meaning to having knowledge. As Poincaré put it, "Science is built up of facts, as a house is built up with stones; but an accumulation of facts is no more a science than a heap of stones is a house.

For facts to be meaningful, imagination is necessary. There must be something conceived beyond the facts. Traditionally, philosophers have said that this is a form out of which inductive conclusions come. Based upon a careful observation of the facts, one draws an inductive conclusion which frames a paradigm (pattern or example.) Thus a happy marriage is made between empirical fact and imaginative theory. To paraphrase Immanuel Kant, we might say that facts without theory are blind; theory without facts is empty.



In the same way, no collection of facts, even those represented by the use of intricate computers, can be viewed apart from some values which are parasitical. The fact/value dichotomy that has reigned so long in our culture must be exploded.

No one approaches the computer in a value-free way. Each individual who designs, programs, or uses one does so in a manner reflective of his/her world and life view. These values act as sign posts, guiding particular uses of the machine. Hence, there cannot be value-void uses of the computer.

The Soul of a New Machine, by Tracy Kidder, tells about the making of a new computer, manufactured by Data General in Massachusetts. It is a fascinating account and provides insight into the way a computer mesmerizes the individuals who work with it. It is also a *prima facie* case against the dominant assumption that computers are merely tools, ordinary machines that simply do as they are told. It shows exactly why the idea of a value-free way of viewing the computer is a convenient myth. One passage in particular uncovers this common misconception. It is a quote from one of the leaders of the Data General project.

I loved writing programs. I could control the machine, and could make it express my own thought. It was an expansion of the mind to have a computer... It really is like a drug I think... It was great for me to learn that priestly language. I could talk to God, just like IBM.

This quote embodies everything that is wrong in viewing the computer as a mere machine, usually neutral, and spiritually undetermined.

Note first of all the religious quality of the quotation. The use of "priestly language" certainly implies a religious dimension.

In addition, the progammer sees the act of writing programs as being a self-transcending experience. This is indicative of a felt-need in man to transcend himself in the direction of some higher unity, which he has called God.

The question naturally arises, what kind of god is being referenced? In my judgment, this sentiment is an exaltation of the nature of man himself: a humanism, in the pejorative sense of that term.

Art, religion, and philosophy as the highest forms of self-expression are capable of making man stand in awe of himself. And he, by virtue of his incredible technical expertise, has produced a technological marvel which is in principle capable of making man see himself reflected in his technology and then to worship that reflection. Pity the man who, discovering in the computer the wonderment of what man might become, meets himself, and calls that God. That represents the ultimate blasphemy and sacrilege of replacing God with human forms (Romans 1:25).

There is no such thing as value-neutrality. *The Soul of the New Machine* and other writings evidence this. There is no such thing as "pure" technology which isolates itself completely from the insight that decides what the technology is about and what it is for. Technology has no

meaning apart from some informing vision. The question is, who will be providing that informing vision? Non-Christian values are clearly alive and well and operative in the contemporary arena of computer technology.

Frankly, it is not at all clear to me that Christians have responded to the challenge of assigning a right significance to computers. Besides the pervasive fear of touching one, which discourages use, there also exists a "bottom line mentality." It asks, what use can one make of the computer? How will it enhance the ministry? These are important questions, but if they are the only ones asked, then I would suggest we Christians are in serious trouble. This one-sided thinking puts a high priority only on use and efficiency without regard to other fundamental human values. On the other hand, the dominant values of our culture are and will be reflected in how computers are designed, programmed, and used. Futurists believe that computer science will provide the foundation for all human life and meaning. We might well ask then, if this is the case, what will serve as the foundation of this vital science? *Quis custodiet custodem?* (Who will guard the custodian?) Should not Christians' values be determinative? Is this not precisely what Christ meant when He commanded us to be salt and light in the world?

Finally, it seems to me that there is no way to avoid the conclusion that the computer is an intelligence form. I realize that there are objections to this view, but we need to face the fact that computers do not necessarily do what we tell them to do. In a very real way they have enabled us to transcend ourselves, particularly with respect to our cognitive limitations.

Joseph Weizenbaum, perhaps the major figure in artificial intelligence (AI) circles, is the computer scientist from MIT who developed the ELIZA program. He named it this because as with Shaw's Eliza in *Pygmalion*, Weizenbaum's version of Miss Doolittle learns to speak better. Can a software program implanted in a machine become greater than when it was written? This really the core of AI research – to create programs that simulate the creativity of human learning.

Alan Turing proposed a test which has come to be known as the Turing Test. It would test the capacity of a computer to think. When Turing reflected on what is the best indication of the presence of human characteristics, he settled on the capacity for discourse as being foundational. Thus, Turing proposed to put a human judge or tester in a room where there were two computer terminals, one connected to a computer and the other to a person. The judge would not know which terminal was connected to which, but he could type into either terminal and receive back typed messages. The judge's job would be to carry out conversations with the entities on the end of the respective terminals and decide which was which.

Turing's test has a compelling logic about it. If the intellectual exchange which took place with the computer was indistinguishable from communication with a human being, then, for all intents and purposes, communication could be said to have taken place with another thinking being – a computer!

Is any computer presently in existence capable of passing the test? As far as I know, the answer thus far is no. But there is every reason to think that the day is not long in coming when the answer will be in the affirmative. Turing himself predicted that he expected computers to pass the test by the end of the century.

From time to time, one laboratory or another claims that it has made a pretty good attempt at passing the test. Scientists who employ large computer conferencing systems report that they often find it difficult to be sure, for a brief period of time at least, whether they are talking to a computer or to one of their colleagues. On one celebrated occasion at MIT, two scientists had been conversing via a computer network when one person left the scene. Unwittingly, the other scientist continued to carry on a cheery conversation – but with the computer!

Christopher Evans reports instances when he has conversed with a computer which he himself programmed and found the computer's answers to be curiously perceptive and quite unpredictable. The International Chess Master David Levy marvels at an experience which occurred in Toronto in August 1978. The computer chess champion of the world, Northwestern University's Chess 4.7, made a number of moves which Levy called "uncannily human." Levy himself suggested that Chess 4.7 passed the Turing Test.

What does all this portend for the future? In the beginning of this article I stated that there is a subtle war being waged as to the meaning and significance of the computer. I have indicated my belief that computers are a value-productive technology and an intelligence form. We as Christians must not fear this technology. Rather, we must deconstruct the "mystical" atmosphere that surrounds computers and be aggressively engaged in the reconstruction of their meaning if we are to be on the "ground floor" of the computer revolution. This includes resisting the complacent strategy of just being users of technology. A community of users is not nearly enough. As long as it is the use-value which is predominant in our schools and in our churches, we will never achieve the fully integrated world and life view which we desire so much.

A basic presupposition of Christian thought is that all human endeavor is energized by values, whether godly or ungodly ones. Whose values direct computer technology today? Whose values will shape computer science and thus the high tech world of tomorrow?

Gary J. Percesepe is Assistant Professor of Philosophy at Cedarville College. He received his B.A. from Cedarville College in 1975, an M.A. from the University of Denver in 1978, and an M.A. from Conservative Baptist Theological Seminary in 1978. In August, he will complete his dissertation for his Ph.D. from St. Louis University.

The Times and the Seasons

by Pat Landers Dixon

Daddy brought it home in this huge box. In fact, he asked a friend to help him move it into the corner of the living room. My sister and I could hardly wait for them to take it out of its cardboard surroundings. We'd heard about what it could do and how much enjoyment it would provide the family.

But Daddy had already given us strict rules about its use: we could not turn the dials ourselves; he had to be home for it to be on; and it was to be used only for certain hours. Little by little the newness wore off and the strictness of the rules lessened. Daddy then allowed us girls to actually touch it and move the dials (but never backward) of that 1954 televison set. It was finally "user friendly."

The purchasing of the family computer seems to be the 80's answer to the 50's televison set. The questions – "Have you bought one yet? Did you hear the Joneses got their TRSH-150m yesterday? How many modalities will yours perform? Did yours come with five floppy discs?" – have replaced the simple, direct ones about the RCA.

Most families have yet to buy a computer, although I do maintain that every household really has one: i.e., the wife's brain. Technicians someday will dissect the average domestic engineer's (the housewife) brain and prove me correct. There are all kinds of information stored from what's in the back left-hand corner of the third drawer in the guest bedroom's dresser to how much the fourth child weighed at five months old. In contrast, how come a husband's depth perception is one half inch when it comes to finding his red socks in his dresser drawer?

I had better stay on "track" and return to the subject of the computer. Since our family doesn't own one, I visited with a family who does. The William Stalters of Dayton, Ohio, purchased a TRS-80 color computer four years ago. Dr. Stalter is a physician and was interested in first using a computer at home before recommending one to his partners for their office use. He did the researching and shopping for it rather than have it merely as a family endeavor.

The family houses the computer in the doctor's study. At this time, only he and the children use it with any degree of regularity. Bonnie, his wife states, "I am going to learn because I realize we are in a computer literacy world. When Bill isn't home though, I don't like to use it. I'm afraid I'll do something to destroy it." Bill remarks, "I never really expected Bonnie to be eager to use it; she's such a 'people person.' She would never want *to use* the automatic teller at the bank but would rather go inside and *talk to* the teller."

The children, Steve and Susan, learned how to use the computer from their father who didn't attend any classes. With just the manual which accompanied the machine, he taught himself and taught them. The various general uses range from games to word processing for school papers and letters. The doctor's major function with it is its help with income tax.

There are a number of services, such as TELLENET, which enable the user to "hook up" to larger computers with more in-depth capabilities. Dr. Stalter comments, "I suppose we use the COMPUSERVE system most of all. It's a hookup with Columbus offering a computerized encyclopedia. So if the kids come home needing certain information, I can get it from there quickly. And, oh yes, it also can tell you the weather and the latest sports scores, especially if OSU won or not." "I might add, too," Bonnie continues, "that using the computer has helped our son to develop his gross motor skills: his eye-hand coordination. He is even motivated now to save money to purchase a computer for college. You know it's not taking a typewriter to college but taking a computer that is in today's high schooler's mind."

I was interested in what the family would suggest for our readers who may be thinking of buying a computer. Dr. Stalter responded, "If I were to buy one again, I'd get a system that manages the checkbook and dumps all that into the income tax information. Also, we'd attend a computer class together as a family. A family needs to discuss what programs it wants with the machine. They need to visit people who own computers and the different stores. Try several systems: the one that is the most comfortable is the one you should buy."

Both Bonnie and Bill agreed: Owning a computer is not a necessity; it's a luxury.

Computers on the Mission Field

by Dr. Donn W. Ketcham

The floodgates have opened! Computers are pouring onto the mission fields of the world. And it has all happened overnight. Let me tell you why.

As I write this, I am seated at the keyboard of a KayPro IV computer, writing with the magic of the Word Star word processing program; and when I am done, the computer will check the spelling with the Word Plus program. Once I am satisfied with the manuscript, the Okidata printer will type it out flawlessly at the rate of 160 key strokes PER SECOND.

Computers are something like scotch tape and paper clips – you wonder how civilization ever got along without them.

In Bangladesh there are NO textbooks in the Bengali language which can be used in our Bible Institute program. Thus, I have committed myself to write a complete set of theology books, and I hope to follow that rather monumental task with the writing of commentaries for use by national believers. This will be one HUGE job. But let me show you how the job can be made simpler by the use of the computer, and you will understand what induced me to become a dedicated, convinced, incurable computer user.

The first step in writing a book involves much research. But WHAT helpful books are in my library? I have recently found a program (instructions to my computer) that will allow me to use the computer to keep track of the bibliographic information on each book in my library. I will add to that a brief description of the book and, finally, a series of key words that describe the major topics covered in each book. When I am ready to pick the books from my library that pertain to any given subject, I will merely enter the key words of the topic and the computer will call up a complete bibliography of available material for me. If I want to refresh my memory on more information about the book, I can have the computer provide the more complete descriptions that I have previously entered.

When the research books are before me, I will want to take notes on my reading, write quotations that might be useful, and somehow organize all this information. Again, I will use the same program, but this time I will use it like a set of 3 x 5 cards. As ideas pop into my mind while I am reading, I can jot them down using the computer keyboard, adding a few key words at the end of each notation to identify the topic. Once I am ready to write, I will simply stroke in the key words that

pertain to the topic at hand and the computer will recall all the notations on that topic. It will also give me the bibliographic information as I go along in case I want to refer back to the original book for further information. Once the book is done, the computer will print out the complete bibliography for the whole book.

The actual writing process of the book will be made much simpler. I will run off drafts of the book for my consultants to mull over. Once their comments are returned, instead of typing the revised book over again, I can simply use the editing features of the word processing program to move the material around, add further material, delete material, and even check the spelling. The word processing program will even automatically construct for me a table of contents and an index. The computer also can add footnotes correctly and automatically.

With the writing tasks I am contemplating, you can easily see how a computer would catch my interest. And now that I am hooked on the use of a word processor, I find that there are a zillion more uses for the computer. It keeps track of my social security number, insurance policy numbers, mailing lists (sorting the lists by zip code), and other bits and pieces of ordinarily easy-to-lose information.

My little computer will also handle the very useful financial spreadsheets. The spreadsheet allows me to key in such information as the base salaries of various hospital employees, the percentage of housing allowance, the percentage of cost-of-living allowances, and other such information. Once the base salary is listed and the formulae are entered, one stroke of a key causes the computer to calculate the figures on the entire sheet in a VERY few seconds. Then I can do "what if?" calculations. I can ask the computer, "What if we were to increase the salary by 3 percent or if we were to decrease the housing allowance by 2 percent? What would the bottom line look like?" These complex calculations will be done immediately and correctly. The administration of the Memorial Christian Hospital is simplified with the use of the computer.

There are yet other uses. In our Literature Division in Bangladesh we are using a computer that does word processing in English OR BENGALI. Further, once the text is written, the computer will pop out a copy in whatever type, whatever size, whatever format we desire and the copy will be "camera-ready" for making offset plates for use on our printing press. The computer will also automatically create a concordance for the entire Bengali Bible. Neat, huh?

More and more missionaries are coming to the field with training in sociology and related sciences. They have the training to be able to explore the population of any given area and ferret out the subgroups that might be expected to respond more readily to the Gospel. The management of such survey information is "duck soup" with a computer and a "pain in the gizzard" without it.

Similarly, I am using the computer to keep track of the results on a clinical experiment that we are running on the treatment of tetanus. We have treated over 800 cases of tetanus in our hospital. To sort through that volume of information by hand would sorely strain my sanctification. The computer does it without even denting my patience.

Did you know that the entire King James Version of the Bible is now available for use on the computer? It makes English Bible study a whole new ball game. For those in the States, there are computers that store the biblical texts in Greek and Hebrew. Through a gadget called a modem, a Bible student thousands of miles away can link into this information via the telephone lines. There is no end in sight to the ways in which the computer will make the job of the Christian worker easier and more productive.

Presently our hospital could make good use (pant, pant!) of a multi-terminal computer system. Such a system would allow us to do all sorts of fancy things. It could be used for word processing or filing or any other such use already mentioned, but it would have far more uses. It could be used to keep track of all our medical records, our inventory, our bookkeeping, our laboratory results, our interdepartmental communications, personnel reports, and other information.

I could dither on endlessly about the benefits of the computer. Suffice it to say that if the computer is used ONLY for word processing and mailing list management, it will be MORE than worth every penny paid. I consistently work a sixteen-hour day. Whenever I can save time and energy with the computer, it will allow me that much more productivity in His service.

May I make a suggestion to churches? When your missionary comes home on furlough, encourage him or her to get a short course on computer literacy at a local college. Pay his fees. Then, encourage the missionary to visit the computer department at Cedarville College where he can discuss his potential uses of a computer. Then, Cedarville personnel can suggest the computer and software that is needed to do his job. And the church can pay for it, of course!

We are all concerned with doing the best possible job for the Lord. We are all impressed that there is a great amount of work to be done and that time is of the essence. In the past few decades we have incorporated into Christian work many new and helpful technologies. There is perhaps no other technology now known that can assist the missionary quite like the computer. It is not for everyone. But for those who are involved in writing, research, information management, Bible translation, and related ministries, the computer is definitely a great step forward.

Dr. Donn W. Ketcham is a missionary doctor with the Association of Baptists for World Evangelism and serves in Bangladesh. He has been director of the Memorial Christian Hospital and has been engaged in Bible translation, teaching, writing, counseling, and village evangelism. Recently, he has been creating an educational curriculum for theological coursework in addition to a textbook, both to be translated into Bengali.

Jackets National Champions

For the second straight year, the Cedarville College men's track team is national track champion of the National Christian College Athletic Association. Coming off a 55-2 season, the Yellow Jackets were favored to win the event for the fourth time in the 12-year history of the NCCAA. "Coach of the Year" honors went to Elvin King who is in his 15th year as head track coach. Cedarville's women's tracksters won the Western Buckeye Collegiate Conference and finished third in the NCCAA. In other sports results, the men's tennis team won its 13th consecutive conference title, the NAIA District 22, and another trip to the national tournament in Kansas City where it placed a best ever 13th out of 50 teams. The lady netters won their first NAIA District 22 tournament and also competed in the nationals. By posting a 12-3 match record, Cedarville's golf team was Mid-Ohio Conference co-champions.

Dr. Ketcham honored at Commencement

At the college's 88th Annual Commencement on June 2, 1984, the honorary Doctor of Humanities degree was conferred on Dr. Donn W. Ketcham, medical missionary to Bangladesh. Graduating was a class of 358 including 16 who received two-year secretarial administration certificates and two who received the one-year Bible certificate.

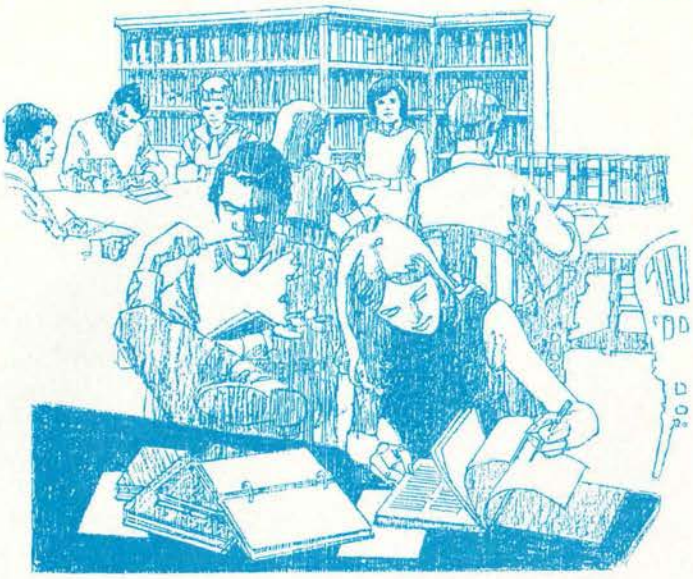
Registrations running ahead

Admissions director David Ormsbee reports that fall admissions are currently running 10% above last year's pace at this time. This would appear to put the college well on its way to its sixth consecutive record enrollment. Mr. Ormsbee comments that prospective students still have time to register for fall quarter and recommends that returning students get their room deposits in as soon as possible.

Dr. Clark V.P. of Development

The college board of trustees has appointed Dr. Martin E. Clark as Vice President of Development. Since coming to Cedarville in 1974, he has served as director of planning and director of counseling. He also teaches part time; is in demand as a speaker in churches, retreats, conferences, and schools; and is the author of two books and numerous articles. Dr. Clark's background as a pastor, counselor, administrator, teacher, and college planner makes him well qualified as he assumes leadership of college development. His new responsibilities include oversight of the departments of Alumni, Planned Giving, Public Relations, Annual Giving, and the WCDR radio ministry. He also continues as director of college planning and will be the editor of the TORCH magazine.

A TAX DEDUCTIBLE SCHOLARSHIP FUND FOR YOUR CHILD OR GRANDCHILD?



Robert C. Auckland
Director of Planned Giving

I am often asked whether a parent or grandparent can create a scholarship fund, making a deductible contribution of assets to Cedarville College, **AND** designate his or her child or grandchild as the first recipient. Unfortunately, the answer is no. But, there is a way to achieve the same result. Consider this example:

A donor transfers $50,000 in appreciated assets to a charitable remainder unitrust, set up for a period of four years. Each year the trust pays the child or grandchild (student) 10 percent of the value of its assets. The donor gets an immediate income tax charitable deduction of approximately $32,800. If the donor is in the 55 percent bracket (state and federal combined), the **tax savings** amount to $18,040, which means the **net cost** of the $50,000 transfer to the trust is now only $31,960.

Meanwhile, the unitrust which cost $31,960 to fund will pay yearly income to the student at a much lower tax bracket. The annual distribution to the student based on earnings of 7 percent and corpus growth of 5 percent in the tax exempt unitrust are as follows:

Year 1	$5,600	Year 3	$5,690
Year 2	$5,645	Year 4	$5,735

The total paid to the student over four years is $22,670, while the cost of the trust was $31,960. What has the $9,290 achieved? By the end of the trust term, the principal of the trust is worth over $51,000 which is transferred to Cedarville College outright and may be used to fund a permanent scholarship in the family's name.

There are several other benefits that accrue to the donor, such as the avoidance of capital gains tax on appreciated assets transferred to the trust and the removal of the asset from the estate thereby also avoiding any possible estate tax.

Two important goals were met with one financial outlay:

1. The education of the student
2. A substantial charitable gift during the donor's lifetime

Before setting up this type of trust, **You** need to first determine: **does this meet my needs?** This is only one example of many avenues that are open to you. This same plan can be established in varying amounts and could even be set up several years in advance with small annual contributions to the trust.

Please write for your personal copy of the informative brochure, "Living Trusts Can Be Giving Trusts." We will be happy to send it without cost or obligation.

- ☐ Please send brochure "Living Trusts Can Be Giving Trusts."
- ☐ Please send booklet "Giving Through Your Will."
- ☐ I/We have already remembered Cedarville College in my/our will.

Clip and mail today to: Mr. Robert C. Auckland
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Cedarville College
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Cedarville, OH 45314

Cedarville College
Welcomes You To The Future!

The Information Age. The Computer Revolution. Call it what you will. New technologies are transforming the way we learn. And Cedarville College is in the vanguard of Christian liberal arts colleges which have the hardware, software, faculty, and programs needed to meet the challenges today and in the future. ♦ Our new Academic Computer Center features a Digital Equipment Corporation (DEC) VAX 11/750 computer. *It is state of the art; the best of its kind.* With this equipment the Computer Center services students and faculty across all academic disciplines. ♦ Two years in the development, our new Computer Information Systems (CIS) major has been approved and will become a reality in the fall of 1984. ♦ At Cedarville College we remain true to our past. Yet, we are aggressive in our commitment to remain on the "cutting edge" of our future.

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